## **Recovery Plan Action Status**

Plan Name: Bayou Darter Plan Status: Final Revision 1

Plan Date: 10-Jul-90 Lead Agency: USFWS

Lead Office; Mississippi Ecological Services Field Office 965-4900)

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Bayou darter (Etheostoma rubrum)	2	1	Monitor average habitat area	Ongoing Not Current	Prior to FY 1995		Mississippi Department of Wildlife, Fisheries and Parks, USFWS Regional Office 4 - Atlanta, U.S. Fish and Wildlife enhancement	Management: Habitat Maintenance and Manipulation, Management: Land Use, Research: Habitat Requirements, Research: Habitat Status	Graduate Student, Internal Field Assistance, Internal Technical Assistance, Species Expert, Volunteer	Repeat once every 5 years
Bayou darter (Etheostoma rubrum)	3	10	Identify sources of degradation	Ongoing Current	Prior to FY 1995		Mississippi Department of Wildlife, Fisheries and Parks, USFWS Regional Office 4 - Atlanta, U.S. Fish and Wildlife enhancement	Other: Administration, Other: Information and Education, Other: Law Enforcement, Other: Regulations, Research: Environmental Contaminants, Research: Habitat Requirements, Research: Habitat Status	Contract, Graduate Student, Internal Field Assistance, Internal Technical Assistance, Species Expert	Repeat once every 5 years
Bayou darter (Etheostoma rubrum)	2	11	Study fluvial geographic processes	Ongoing Current	Prior to FY 1995		U.S. Army Corps of Engineers, Mississippi Department of Wildlife, Fisheries and Parks, USFWS Regional Office 4 - Atlanta, U.S. Fish and Wildlife enhancement, Mississippi Bureau of Geology, Mississippi Bureau of Pollution Control	Research, Research: Environmental Contaminants, Research: Habitat Requirements, Research: Habitat Status, Research: Management Techniques, Research: Other Information	Contract, Graduate Student, Internal Field Assistance, Internal Technical Assistance, Species Expert	

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Bayou darter (Etheostoma rubrum)	2	12	Prevent further headcutting	Ongoing Current	Prior to FY 1995		Mississippi Department of Wildlife, Fisheries and Parks, USFWS Regional Office 4 - Atlanta, U.S. Fish and Wildlife enhancement	Acquisition: Easement, Acquisition: Management Agreement, Acquisition: Other, Management: Habitat Maintenance and Manipulation, Management: Land Use, Management: Planning, Other: Administration, Other: Information and Education, Other: Law Enforcement, Other: Regulations, Research: Habitat Status, Research: Management Techniques, Research: Other Information	Contract, Internal Administrative, Internal Field Assistance, Internal Technical Assistance, Species Expert, Volunteer	Costs to be determined
Bayou darter (Etheostoma rubrum)	3	13	Establish and implement SCS plan to reduce sediment loading	Ongoing Not Current	Prior to FY 1995		Soil Conservation Service , USFWS Regional Office 4 - Atlanta, U.S. Fish and Wildlife enhancement	Management: General, Management: Habitat Maintenance and Manipulation, Management: Land Use, Management: Planning, Other: Administration, Other: Information and Education, Other: Regulations, Research: Habitat Requirements, Research: Habitat Status, Research: Management Techniques	Internal Administrative, Internal Field Assistance, Internal Technical Assistance	Normal operations costs

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Bayou darter (Etheostoma rubrum)	2	14	Establish wooded buffer zone	Ongoing Not Current	Prior to FY 1995		The Nature Conservancy, Mississippi Department of Wildlife, Fisheries and Parks, USFWS Regional Office 4 - Atlanta, U.S. Fish and Wildlife enhancement	Acquisition: Easement, Acquisition: Management Agreement, Management: General, Management: Habitat Maintenance and Manipulation, Management: Land Use, Management: Planning, Other: Administration, Other: Information and Education, Other: Law Enforcement, Other: Regulations, Research: Habitat Requirements, Research: Habitat Status, Research: Management Techniques	Contract, Internal Administrative, Internal Field Assistance, Internal Technical Assistance	Normal operations costs
Bayou darter (Etheostoma rubrum)	3	15	Implement soil conservation measures	Ongoing Current	Prior to FY 1995		Soil Conservation Service , Mississippi Department of Wildlife, Fisheries and Parks , USFWS Regional Office 4 - Atlanta, U.S. Fish and Wildlife enhancement	Management: Habitat Maintenance and Manipulation, Management: Land Use, Management: Planning, Other: Administration, Other: Information and Education, Other: Law Enforcement, Other: Regulations	Internal Administrative, Internal Field Assistance, Internal Technical Assistance, Volunteer	Normal operations costs
Bayou darter (Etheostoma rubrum)	3	16	Identify drainage areas	Ongoing Current	Prior to FY 1995		Soil Conservation Service , Mississippi Department of Wildlife, Fisheries and Parks , USFWS Regional Office 4 - Atlanta, U.S. Fish and Wildlife enhancement	Research: Other Information	Contract, Graduate Student, Internal Administrative, Internal Field Assistance, Internal Technical Assistance, Volunteer	Normal operations costs

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Bayou darter (Etheostoma rubrum)	3	17	Ensure sand and gravel operations comply with State and Federal regulations	Ongoing Current	Prior to FY 1995		U.S. Army Corps of Engineers, Mississippi Department of Environmental Quality, Environmental Protection Agency, Mississippi Department of Wildlife, Fisheries and Parks, USFWS Regional Office 4 - Atlanta, U.S. Fish and Wildlife enhancement, Mississippi Bureau of Geology, Mississippi Bureau of Pollution Control	Management: Land Use, Management: Planning, Other: Administration, Other: Information and Education, Other: Law Enforcement, Other: Regulations	Contract, Internal Administrative, Internal Field Assistance, Internal Technical Assistance, Volunteer	Normal operations costs
Bayou darter (Etheostoma rubrum)	3	18	Obtain cooperative agreement to reduce erosion from highways	Unknown	Prior to FY 1995		Mississippi Department of Wildlife, Fisheries and Parks, USFWS Regional Office 4 - Atlanta, U.S. Fish and Wildlife enhancement, Board of Supervisors, Copiah County, Board of Supervisors, Lincoln County, Board of Supervisors, Ciaiborne County	Management: Other, Management: Planning, Other: Administration, Other: Information and Education, Other: Law Enforcement, Other: Regulations	Internal Administrative, Internal Field Assistance, Internal Technical Assistance	Normal operations costs
Bayou darter (Etheostoma rubrum)	3	19	Legislation for buffer zones and easements	Ongoing Not Current	Prior to FY 1995		Mississippi Department of Wildlife, Fisheries and Parks, USFWS Regional Office 4 - Atlanta, U.S. Fish and Wildlife enhancement	Acquisition, Acquisition: Easement, Acquisition: Exchange, Acquisition: Fee Title, Acquisition: General, Acquisition: Lease, Acquisition: Management Agreement, Acquisition: Other, Acquisition: Withdrawal	Internal Administrative, Internal Field Assistance, Internal Technical Assistance	Normal operations costs

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Bayou darter (Etheostoma rubrum)	2	2	Monitor population density	Ongoing Current	Prior to FY 1995		Mississippi Department of Wildlife, Fisheries and Parks, USFWS Regional Office 4 - Atlanta, U.S. Fish and Wildlife enhancement	Research, Research: Competition, Research: Demographic Studies, Research: Disease, Research: General, Research: Migration, Research: Other Information, Research: Population Surveys, Research: Predation, Research: Taxonomic Studies	Graduate Student, Internal Field Assistance, Internal Technical Assistance, Species Expert, Volunteer	Repeat once every 5 years
Bayou darter (Etheostoma rubrum)	3	20	Protection measures for essential darter habitat	Ongoing Not Current	Prior to FY 1995		Mississippi Department of Wildlife, Fisheries and Parks , USFWS Regional Office 4 - Atlanta, U.S. Fish and Wildlife enhancement	Acquisition, Acquisition: Other, Management, Management: Habitat Maintenance and Manipulation, Management: Land Use, Management: Other, Management: Planning, Other, Other: Information and Education, Other: Law Enforcement, Other: Regulations, Research, Research: Habitat Requirements, Research: Habitat Status	Contract, Internal Administrative, Internal Field Assistance, Internal Technical Assistance	Costs to be determined
Bayou darter (Etheostoma rubrum)	3	21	Plan transplant effort	Unknown	Prior to FY 1995		Mississippi Department of Wildlife, Fisheries and Parks, USFWS Regional Office 4 - Atlanta, U.S. Fish and Wildlife enhancement	Other: Regulations, Research: Genetics, Research: Management Techniques, Research: Other Information, Research: Propagation, Research: Reintroduction	Graduate Student, Internal Administrative, Internal Field Assistance, Internal Technical Assistance, Species Expert	

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Bayou darter (Etheostoma rubrum)	2	22	Assure full implementation of EPA pesticide labeling program in the watershed	Unknown	Prior to FY 1995		Environmental Protection Agency , USFWS Regional Office 4 - Atlanta, U.S. Fish and Wildlife enhancement, Mississippi Bureau of Pollution Control	Other: Administration, Other: Information and Education, Other: Law Enforcement, Other: Regulations	Contract, Internal Administrative	Normal operations cost
Bayou darter (Etheostoma rubrum)	3	23	Publicity program for preservation of the Bayou Pierre system	Ongoing Current	FY 2011	FY 2013	USFWS Regional Office 4 - Atlanta, U.S. Fish and Wildlife enhancement	Management: Land Use	Contract, Graduate Student, Internal Administrative, Volunteer	Normal operations cost
Bayou darter (Etheostoma rubrum)	2	3	Monitor distribution	Ongoing Current	Prior to FY 1995		Mississippi Department of Wildlife, Fisheries and Parks, USFWS Regional Office 4 - Atlanta, U.S. Fish and Wildlife enhancement	Research: Other Information	Graduate Student, Internal Administrative, Internal Field Assistance, Internal Technical Assistance, Species Expert, Volunteer	Normal operations cost
Bayou darter (Etheostoma rubrum)	3	4	Sample microhabitats	Ongoing Current	Prior to FY 1995		Mississippi Department of Wildlife, Fisheries and Parks, USFWS Regional Office 4 - Atlanta, U.S. Fish and Wildlife enhancement	Research: Habitat Requirements, Research: Habitat Status, Research: Other Information, Research: Population Surveys	Graduate Student, Internal Field Assistance, Internal Technical Assistance, Species Expert	
Bayou darter (Etheostoma rubrum)	3	5	Study movement and home range	Ongoing Current	Prior to FY 1995		Mississippi Department of Wildlife, Fisheries and Parks, USFWS Regional Office 4 - Atlanta, U.S. Fish and Wildlife enhancement	Research: Competition, Research: Migration, Research: Other Information	Contract, Graduate Student, Internal Field Assistance, Internal Technical Assistance, Species Expert	
Bayou darter (Etheostoma rubrum)	2	6	Monitor water quality	Ongoing Not Current	Prior to FY 1995		Mississippi Department of Wildlife, Fisheries and Parks, USFWS Regional Office 4 - Atlanta, U.S. Fish and Wildlife enhancement, Mississippi Bureau of Pollution Control	Other: Administration, Other: Information and Education, Other: Law Enforcement, Other: Regulations, Research, Research: Environmental Contaminants, Research: General, Research: Other Information	Contract, Graduate Student, Internal Field Assistance, Internal Technical Assistance	Repeat every 5 years

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Bayou darter (Etheostoma rubrum)	2	7	Determine presence of toxins in watershed	Ongoing Not Current	Prior to FY 1995		Mississippi Department of Wildlife, Fisheries and Parks, USFWS Regional Office 4 - Atlanta, U.S. Fish and Wildlife enhancement, Mississippi Bureau of Pollution Control	Other: Administration, Other: Information and Education, Other: Law Enforcement, Other: Regulations, Research, Research: Environmental Contaminants, Research: General, Research: Other Information	Contract, Graduate Student, Internal Field Assistance, Internal Technical Assistance	
Bayou darter (Etheostoma rubrum)	2	8	Conduct food chain toxicity studies	Unknown	Prior to FY 1995		Mississippi Department of Wildlife, Fisheries and Parks, USFWS Regional Office 4 - Atlanta, U.S. Fish and Wildlife enhancement	Research: Environmental Contaminants, Research: Other Information	Contract, Graduate Student, Internal Field Assistance, Internal Technical Assistance	
Bayou darter (Etheostoma rubrum)	2	9	Determine specific toxicants	Unknown	Prior to FY 1995		Mississippi Department of Wildlife, Fisheries and Parks, USFWS Regional Office 4 - Atlanta, U.S. Fish and Wildlife enhancement	Research: Other Information	Contract, Graduate Student, Internal Field Assistance, Internal Technical Assistance	